AGREEMENT BETWEEN

THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA AND

THE CENTRAL RESEARCH INSTITUTE OF
THE ELECTRIC POWER INDUSTRY OF JAPAN
IN THE AREA OF ELECTRIC AND MAGNETIC FIELD EFFECTS

WHEREAS, the Government of the United States of America and the Government of Japan have a mutual interest in the more efficient transmission of electric power and in the effects on human beings from exposure to high voltage, and consequently in the acquisition of scientific data on potential health, safety and biological effects of electric and magnetic fields associated with high voltage electric transmission systems; and

WHEREAS, on April 26, 1984, the United States Department of Energy (DOE) and the Ministry of International Trade and Industry of Japan (MITI) agreed on an Implementing Arrangement between them concerning joint research in electric field effects, hereinafter referred to as the "DOE/MITI Arrangement on Electric Field Effects," in which the Central Research Institute of the Electric Power Industry of Japan (CRIEPI) has been designated as the executing institute on the Japanese side for carrying out the MITI portion of the U.S.- Japan Cooperative Electric Field Effects Program.

NOW, THEREFORE, the United States Department of Energy (DOE) and the Central Research Institute of the Electric Power Industry of Japan (CRIEPI), hereinafter referred to as the "Parties," wish to conclude the following Arrangement.

Article 1. Objective

The objective of cooperation under this Agreement is to establish and carry out a joint experimental and analytical program, hereinafter called the "Program", under a relationship of equality between the Parties, to determine the behavioral and physiological effects, if any, on non-human primates (Papio Cynocephalus) resulting from magnetic and electric fields associated with the transmission and distribution of electricity.

Article 2. Program

DOE and CRIEPI shall carry out the Program jointly at the Southwest Research Institute (SWRI) located at San Antonio, Texas, U. S. A., using the Facilities funded by DOE as defined in Article 8 and the Funds provided by CRIEPI as defined in Article 9. The direction, management and evaluation of the result of the Program shall be carried out by mutual agreement of the Parties, as described in Articles 3 and 4.

Article 3. Rights and responsibilities

- 1. To carry out the requirements of the Program,

 DOE shall at its own expense:
 - a. Discuss and agree with CRIEPI an experimental plan of research for each project of the Program prior to such research.
 - b Provide the Facilities and its qualified technical staff as necessary for carrying out the Program.
 - c. Allow and cooperate with individuals designated by CRIEPI to have access to magnetic and electric field research activities being conducted at DOE-funded magnetic and electric field research centers other than SWRI, under terms and conditions to be mutually agreed by the Parties in each case.
 - d. Provide for the calibration and documentation of the Facilities for magnetic and electric field uniformity, field strength and artifacts from time to time.
 - e. Perform technical management of the research at SWRI under the policy guidance of the Joint Committee (Article 4).

- f. Provide to CRIEPI all published results of research on magnetic and electric field effects completed by DOE during the past three years.
- g. Provide to CRIEPI annually, as long as this
 Agreement remains in force and effect, the
 current and future research plans and results of
 research on magnetic and electrical field
 effects undertaken by DOE.
- 2. To carry out the requirements of the Program CRIEPI shall at its own expense:
 - a. Discuss and agree with DOE an experimental plan of research for each project of the Program prior to such research.
 - b Provide to DOE all published results of research on magnetic and electric field effects completed by CRIEPI during the past three years.
 - c. Provide to DOE annually, as long as this
 Agreement remains in force, and effect, the
 current and future research plans and results of
 research on magnetic and electric field effects
 undertaken by CRIEPI.
 - d. Provide the Funds to DOE for carrying out the Program in accordance with Article 9.
- 3. CRIEPI may assign to SWRI a maximum of two technical staff for a period of not longer than three (3)

months to participate in carrying out specific projects of the Program.

Article 4. Management

1. To supervise the execution of this Agreement, a joint DOE/CRIEPI Committee on Magnetic and Electric Field Effects shall be established.

The Joint Committee shall consist of not more than six representatives, half of whom shall respectively be designated by each Party. The Co-Chairmen of the Joint Committee shall be designated by DOE and by CRIEPI, respectively. DOE representatives as a group shall have one vote, and CRIEPI representatives as a group shall have one vote, and all decisions of the Joint Committee shall be taken by unanimity. The Program shall be carried out in accordance with the direction decided by the Joint Committee.

- 2. Prior the expenditure of Funds, DOE shall submit to the Joint Committee a management plan for the Program which shall include:
 - A research proposal
 - Facilities to be used
 - Schedules
 - Costs.

The Joint Committee shall decide each project of the Program based on the management plan submitted by DOE above.

- 3. DOE shall prepare or shall cause to be prepared reports covering the planning of the Program, experimental data and information and the results of analysis thereof and submit them to the Joint Committee. Based on the reports, the Joint Committee shall review, evaluate and assess the Program and the results arising from the Program.
- 4. The Joint Committee shall normally meet once each year in the United States at SWRI, in Japan at CRIEPI or at such other times or places as mutually agreed. DOE shall also provide a review of current pertinent DOE research at least once a year at CRIEPI. Each party shall bear the allowances, travel and living expenses for its representatives to be sent to the Joint Committee. The costs for meetings shall be borne by the host Party in which country such meetings of the Joint Committee shall be held. Each Party shall be entitled to designate observer(s) to attend the meeting of the Joint Committee.
- 5. To achieve the highest possible standards of scientific quality in the Program, the customary normal United States scientific peer review process shall be applied to cover the research at SWRI. CRIEPI may

designate up to two scientific experts as its representatives on the existing DOE Peer Review Team in Magnetic and Electric Field Effects, which shall meet at such times and under the customary rules and procedures as established by DOE. The function of the Peer Review Team shall be to review, evaluate and assess the scientific aspects of the experimental work plan, the Facilities and the results of the Program from time to time. Any findings and recommendations made by the Peer Review Team for remedial action in the conduct of the Program shall be reviewed and approved for action by the Joint Committee.

Article 5. Information

1. General

The Parties support the widest possible dissemination of information provided, exchanged, or arising under this Agreement, subject to the need to protect proprietary information exchanged hereunder, and to the provisions of this Article. Such information may be made available to the public by either Party through customary channels and in accordance with normal procedures of the Parties.

Definitions as used in this Agreement

a. The term "information" means scientific or technical data, results or methods of research and development and any other information

- intended to be provided, exchanged or arising under this Agreement.
- b. The term "proprietary information" means information acquired outside this Agreement which contains trade secrets or commercial or financial information which is privileged or confidential, and may only include such information which:
 - (a) has been held in confidence by its owner;
 - (b) is of a type which is customarily held in confidence by its owner;
 - (c) has not been transmitted by the transmitting Party to other entities (including the receiving Party) except on the basis that it be held in confidence; and
 - (d) is not otherwise available to the receiving Party from another source without restriction on its further dissemination.
- 3. Procedures for managing proprietary information
- a. A Party receiving proprietary information pursuant to this Agreement shall respect the privileged nature thereof. Any document which contains proprietary information shall be clearly marked with the following (or substantially similar) restrictive legend:

"This document contains proprietary information furnished in confidence under between the United States Department of Energy and the Central Research Institute of the Electric Power Industry of Japan and shall not be disseminated outside specifically designated individuals or working groups in these organizations, their contractors, and the concerned departments and agencies of the Governments of the U. S. and Japan without prior approval of DOE and CRIEPI." "This notice shall be marked on any reproduction hereof, in whole or in part. These limitations shall automatically terminate when this information is disclosed by the owner without restriction."

- b. Proprietary information received in confidence under this Agreement may be disseminated by the receiving Party to:
 - (a) persons with or employed by the receiving Party, and concerned Government departments and Government agencies in the country of the receiving Party; and

- Party located within the geographical limits of the receiving Party's country, for use only within the framework of their contracts with the receiving Party work relating to the subject matter of the proprietary information, provided that any proprietary information so disseminated shall be pursuant to an agreement of confidentially and shall be marked with a restrictive legend substantially identical to that appearing in subsection 3(a) above.
- 4. With the prior written consent of the Party providing proprietary information under this Agreement, the receiving Party may disseminate such proprietary information more widely than otherwise permitted in the foregoing paragraph 3. The Parties shall cooperate with each other in developing procedures for requesting and obtaining approval for such wider dissemination, and each Party shall grant such approval to the extent permitted by its national policies, regulations and laws.
- 5. Each Party shall exercise its best efforts to ensure that proprietary information received by it under this Agreement is controlled as provided herein. If one of the Parties becomes aware that it will be, or may reasonably become, unable to meet the nondissemination

provisions of this Article, it shall immediately inform the other Party. The Parties shall thereafter consult to define an appropriate course of action.

- 6. Information arising from seminars and other meetings arranged under this Agreement shall be treated by the Parties according to the principles specified in this Article, provided, however, that no proprietary information orally communicated shall be subject to the limited disclosure requirements of this Agreement unless the individual communicating such information informs the recipient as to the proprietary character of the information communicated.
- 7. Nothing contained in this Agreement shall preclude the use or dissemination of information received by a Party other than pursuant to this Agreement.
- 8. Information transmitted by one Party to the other Party under this Agreement shall be accurate to the best knowledge and belief of the transmitting Party, but the transmitting Party does not warrant the suitability of the information transmitted for any particular use or application by the receiving Party or by any third party.

Article 6. Invention or Discovery

1. With respect to any invention or discovery made or conceived in the course of or under this Agreement:

- a. If made or conceived by personnel of one Party
 (the Assigning Party) or its contractors while
 assigned to the other Party (Recipient Party) or
 its contractors, in connection with exchanges of
 scientists, engineers and other specialists:
 - (a) The Recipient Party shall acquire all right, title and interest in and to any such invention or discovery in its own country and in third countries, subject to nonexclusive, irrevocable, royalty-free license in all such countries to the Assigning Party, its Government and its nationals designated by it; and
 - (b) The Assigning Party shall acquire all right, title and interest in and to any such invention or discovery in its own country, subject to nonexclusive, irrevocable, royalty-free license to the Recipient Party, its Government and its nationals designated by it.
- b. If made or conceived by a Party or its contractors a direct result of employing information which has been communicated to it under this Agreement by the other Party or its contractors or communicated during seminars or other joint meetings, the Party making the invention shall acquire all right, title and

interest in and to such invention or discovery in all countries, subject to a nonexclusive, irrevocable, royalty-free license to the other Party, its Government and its nationals designated by it.

- 2. With regard to other forms of cooperation the Parties shall provide in Annexes to this Agreement an appropriate distribution of rights to inventions or discoveries resulting from such cooperation.
- 3. Information regarding inventions on which patent protection is to be obtained by a Party shall not be published or publicly disclosed by the other Party until a patent application has been filed, provided, however, that this restriction on publication or disclosure shall not extend beyond six months from the date of receipt of such information. It shall be the responsibility of the inventing Party to appropriately mark reports which disclose inventions that have not been appropriately protected by the filing of a patent application.
- 4. Each Party shall, without prejudice to any rights of inventors or authors under its national laws, take all necessary steps to provide cooperation from its inventors and authors required to carry out the provisions of this Article and Article VIII. Each Party shall assume

responsibility to pay awards or compensation required to be paid to its own nationals according to its laws.

Article 7. Disclaimer

The application or use of any information exchanged or transferred between the Parties under this Agreement shall be the responsibility of the Party receiving it, and the transmitting Party does not warrant the suitability of such information for any particular use or application. Neither Party warrants the suitability of information arising from the Program for any particular use or application.

Article 8. Facilities

DOE shall, at its expense, provide the existing experimental facility at SWRI, modified for mixed magnetic and electric field generation pursuant to the Program as decided by the Joint Committee under Paragraph 2 of Article 4.

Article 9. Funds

1. In order to carry out the Program, CRIEPI shall make annual financial contributions to DOE, to be spent for the conduct of the Program. Such contributions shall cover the costs for personnel expenses for scientists,

technical personnel and electricity for experimental buildings, breeding costs and other operating expenses, hereinafter called as "Funds". The Funds shall total U.S. \$3,020,415 and shall be paid as shown in Paragraph 2 of this Article, unless additional funds are agreed to pursuant to Paragraph 3.

- 2. The annual financial contributions of the Funds shall be remitted by CRIEPI upon receipt of an invoice from DOE in accordance with the following schedule:
 - a. U.S. \$818,729 as soon as this Agreement enteres into force and effect
 - b. U.S. \$784,502 on or before the end of August, 1989
 - C. U.S. \$956,437 on or before the end of August, 1990
 - d. U.S. \$460,747 on or before the end of August, 1991
- 3. Any changes to the Funds which may be required to carry out the recommendations of the Peer Review Team described in Paragraph 4 of Article 4, as approved by the Joint Committee, shall be decided by mutual agreement of the Parties.
- 4. In the event that this Agreement shall be terminated by DOE or CRIEPI pursuant to Article 13, CRIEPI shall be released of its obligation to make further annual financial contributions as shown in Paragraph 2 of this Article. In such event, the amount of Funds contributed

in excess of those necessary to cover costs associated with the Program and its termination, shall be refunded to CRIEPI.

- 5. In no event shall CRIEPI be required to make any contributions exceeding the total amount of U.S.\$3,020,415 for the Program, unless otherwise agreed by both Parties.
- 6. Except when otherwise specifically agreed at the time, all costs resulting from cooperation under this Agreement shall be borne by the Party that incurs them.
- 7. Any equipment, facilities, materials and any other property purchased by the Funds shall be owned by CRIEPI. Upon expiration or termination of this Agreement, DOE shall dispose of such equipment, materials and other property in the manner instructed by CRIEPI and shall remit to CRIEPI the proceeds therefrom after deducting reasonable expenses associated with such disposition.
- 8. DOE shall separately account for the Program and such accounts shall be subject to inspection and copying by CRIEPI.

Article 10. Assignment of CRIEPI Staff

1. DOE shall arrange free of charge office space and normal support services at SWRI for CRIEPI Staff assigned pursuant to Paragraph 3, Article 3.

- 2. CRIEPI shall be responsible for the salaries, insurances and allowances to be paid to the assigned CRIEPI Staff.
- 3. CRIEPI shall pay for the travel and living expenses of the assigned CRIEPI Staff while on assignment, unless otherwise agreed.
- 4. DOE shall arrange or do its best to arrange for appropriate accommodations for the assigned CRIEPI Staff.
- 5. DOE shall provide all necessary assistance to the assigned CRIEPI Staff as regards administrative formalities, such as travel arrangement or visa acquisition.
- 6. The assigned CRIEPI Staff shall conform to the general and special rules of work and safety regulations in force at SWRI.
- 7. Any such assignment of greater than three (3) months duration shall be the subject of a separate assignment agreement between the Parties.

Article 11. Damages

Compensation for damages incurred during the course of this Agreement shall be in accordance with the applicable laws of the countries of the Parties.

Article 12. Settlement

Cooperation under this Agreement shall be in accordance with the laws of the respective countries and the regulations of the respective Parties. All questions related to this Agreement arising during its term shall be settled by the Parties by mutual agreement.

Article 13. Termination

- 1. This Agreement may be terminated at the discretion of either Party upon six (6) months prior notice in writing to the other Party.
- 2. Termination of this Agreement shall be without prejudice to the rights which have accrued under this Agreement to either Party up to the date of such termination.

Article 14. Miscellaneous

This Agreement shall enter into force upon signature and, subject to Article 13, shall continue for a five (5) years period.

DONE	in duplicate	at	Tokyo	this	24	day
of _	June	_, 1	988.			

THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA

Program Manager Electromagnetic Research

THE CENTRAL RESEARCH INSTITUTE OF ELECTRIC POWER INDUSTRY OF JAPAN

Vice President and Director Research Management Division